# IV. ENVIRONMENTAL IMPACT ANALYSIS H. PUBLIC UTILITIES 1. SEWER

# **ENVIRONMENTAL SETTING**

### **Regional Setting**

The City of Los Angeles Department of Public Works, Bureau of Sanitation Division (i.e., Bureau of Sanitation), provides sewer conveyance infrastructure and wastewater treatment services for the City of Los Angeles, including the Bundy Campus and surrounding locale within the City's service area.

### Wastewater Treatment

The Hyperion Treatment Plant (HTP), located southwest of the Los Angeles International Airport in Playa Del Rey, provides treatment capacity for wastewater flows generated within the project area. The HTP provides full secondary treatment for all wastewater based on an average dry weather flow of 450 million gallons per day (mgd). HTP currently processes average wastewater flows of approximately 362 mgd.<sup>1</sup> The remaining capacity of the HTP is approximately 88 mgd.

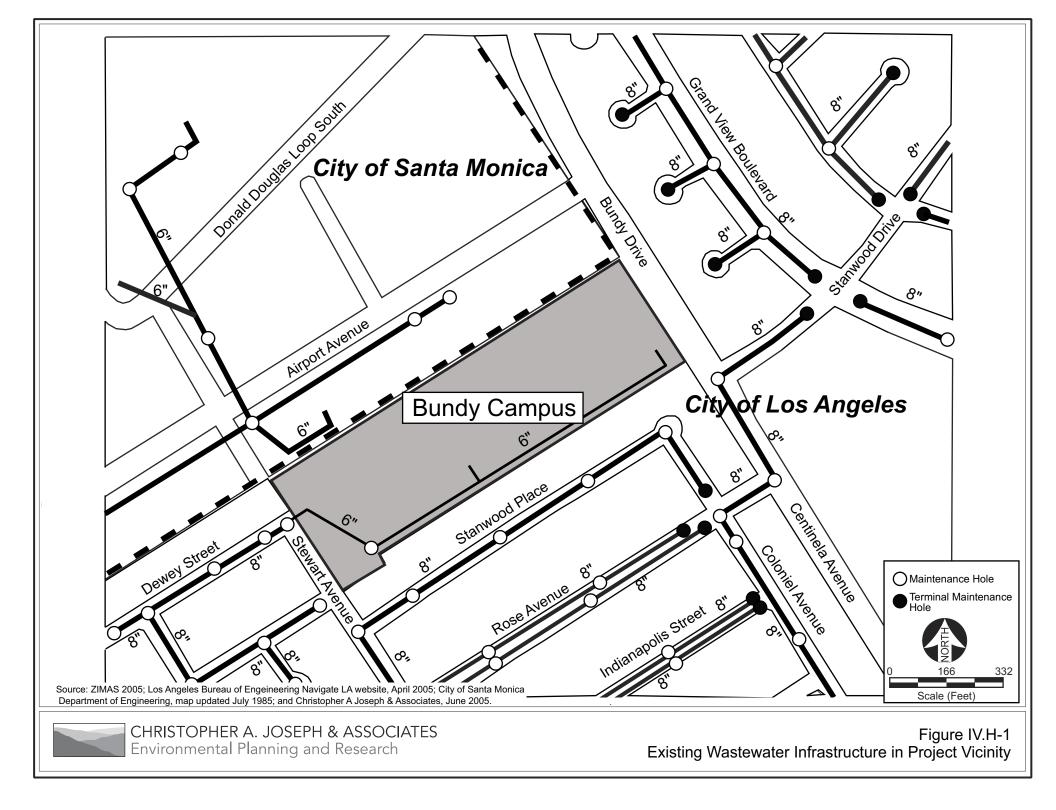
The Hyperion Service Area (HSA) encompasses approximately 328,000 acres, or approximately 515 square miles, of the greater Los Angeles area and serves approximately four million people. The HSA also serves 53,000 acres outside the jurisdiction of the City on a contract basis. The HSA includes approximately 96 percent of the total area served by the City of Los Angeles.<sup>2</sup>

### Local Wastewater Infrastructure

As shown in Figure IV.H-1, local wastewater service is provided to the Bundy Campus by an existing onsite 6-inch sewer line which serves the existing East and West Buildings and connects to existing 8-inch City of Los Angeles sewer lines in Dewey Street and Stanwood Drive, both of which feed into a 10-inch sewer line in Walgrove Avenue.

<sup>2</sup> *Ibid.* 

<sup>&</sup>lt;sup>1</sup> City of Los Angeles Department of Public Works, Bureau of Sanitation, Major Activities, website: http://www.lacity.org/san/sanmact.htm, August 17, 2005.



There is also an 8-inch sewer line in Bundy Drive which feeds into a 15-inch sewer line in Wade Street.<sup>3</sup> While the current capacities of these lines cannot be determined until gauged, the design capacities at d/D of 50 percent for the 8-inch, 10-inch, and 15-inch sewer lines are 230,000 gallons per day (gpd), 347,000 gpd, and 1,170,000 gpd, respectively.<sup>4</sup>

The Bundy Campus is also in the vicinity of existing 6-inch City of Santa Monica sewer lines in Airport Avenue and Donald Douglas Loop South.<sup>5</sup> However, these lines are not connected to the wastewater infrastructure serving the Bundy Campus and therefore would not be impacted by the Master Plan.

# **Project Site**

The Bundy Campus is currently developed with two existing buildings, including a 33,055 square foot (sf) East Building on the east side of the Bundy Campus and a renovated approximately 64,000 sf West Building on the west side of the Bundy Campus. The remainder of the Bundy Campus is generally occupied with paved surface parking. The East Building was occupied up until 2002, since which time it has remained vacant. The four-story West Building currently has 16 classrooms in use, along with multipurpose rooms, offices, and student services functions. Class scheduling for the Fall 2005 semester showed that a total of 409 students were on the Bundy Campus at any given time during the week. Based on staffing assignments, a total of approximately 35 faculty and staff were on the Bundy Campus at any given time during the Fall 2005 semester. Therefore, approximately 444 persons were on the Bundy Campus at any given time during the week in the Fall 2005 semester. The City of Los Angeles Bureau of Sanitation generally considers water consumption to be 120 percent of wastewater generation. Therefore, based on SMC's historic water bills provided by the City of Los Angeles Department of Water and Power (LAWDP), which show the Bundy Campus consumed an average of 2,495 gpd of water in 2005,<sup>6</sup> it can be assumed that the Bundy Campus generated, on average, approximately 2,079 gpd of wastewater during 2005.

<sup>&</sup>lt;sup>3</sup> City of Los Angeles Department of Public Works, Bureau of Engineering, Navigate LA, Wastewater S-Maps, Map No. 534, website: http: navigatela.lacity.org/commongallery/index.htm, April 26, 2005.

<sup>&</sup>lt;sup>4</sup> Written correspondence from Adel Hagekhalil, Division Manager of Wastewater Engineering Services, City of Los Angeles Department of Public Works, Bureau of Sanitation, September 12, 2005.

<sup>&</sup>lt;sup>5</sup> City of Santa Monica, Department of Engineering, Map No. 35, updated July 1985.

<sup>&</sup>lt;sup>6</sup> City of Los Angeles Department of Water and Power, Santa Monica Community College District, 3171 S Bundy Dr, bills issued February 14, 2006; March 16, 2006; April 17, 2006; May 15, 2006; and June 14, 2006.

# ENVIRONMENTAL IMPACTS

### **Thresholds of Significance**

To determine whether a proposed project would have a significant impact related to wastewater, Appendix G to the State CEQA Guidelines asks whether a project would:

- (a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- (b) Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or
- (c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

The District has not yet adopted thresholds of significance for assessing whether potential environmental impacts are significant for purposes of CEQA. Consequently, this EIR uses those thresholds of significance set forth by the City of Los Angeles pursuant to Public Resources Code Section 21082. As set forth in the City of Los Angeles' <u>Draft L.A. CEQA Thresholds Guide</u>, a project would normally have a significant wastewater impact if:

- (a) The project would cause a measurable increase in wastewater flows at a point where, and a time when, a sewer's capacity is already constrained or that would cause a sewer's capacity to become constrained; or
- (b) The project's additional wastewater flows would substantially or incrementally exceed the future scheduled capacity of any one treatment plant by generating flows greater than those anticipated in the Wastewater Facilities Plan or General Plan and its elements.

### **Project Design Features**

The Master Plan will incorporate a variety of project design features intended to minimize the Bundy Campus' use of water resources, and thus reduce the campus' wastewater generation, at Master Plan buildout. These water-efficient project design features (which will also reduce wastewater) are discussed in further detail in Section IV.H.2 (Utilities – Water) of this Draft EIR.

# **Project Impacts**

The implementation of the Master Plan would result in the continued operation of the existing approximately 64,000 sf West Building on the west side of the Bundy Campus. The East Building is proposed to be demolished and replaced with a New Building similar in size (approximately 38,205 sf) adjacent to the West Building. At buildout, the Master Plan would result in approximately 100,000 sf of

floor area on the Bundy Campus, which is approximately equal to the amount of existing floor area on the site. However, the proposed Master Plan would increase the total number of wastewater generating facilities onsite, including new bathrooms, water closets, and sinks. In addition, the total number of students, faculty, and staff onsite at any given time would increase by approximately 485 persons from the existing 444 persons to the proposed 929 persons onsite, an approximate 52 percent increase. Therefore, based on the assumption that the 52 percent increase in persons onsite would be expected to increase from the existing approximately 2,079 gpd of wastewater generated to approximately 4,332 gpd of wastewater generated at Master Plan buildout, a net increase of approximately 2,253 gpd increase represents approximately 0.002 mgd of wastewater.

# Wastewater Treatment

With respect to wastewater treatment facilities, the HTP has approximately 88 mgd of remaining capacity, which could accommodate the increased flow of approximately 2,253 gpd (0.002 mgd) that would be generated under the Master Plan.<sup>7</sup> As such, the Master Plan would have a less-than-significant impact with respect to wastewater treatment.

# Local Wastewater Infrastructure

As discussed above, upon project buildout, wastewater generation on the Bundy Campus is estimated to increase by approximately 2,253 gpd above existing flows. While the Master Plan would increase wastewater generation on the Bundy Campus, wastewater service would continue to be provided by the Bureau of Sanitation from the existing wastewater infrastructure on and surrounding the Bundy Campus. The east sewer line that currently connects to the East Building would be abandoned at the time of building demolition. The 38,205 sf New Building would connect to the existing 6-inch sewer line near the existing West Building, which connects to existing 8-inch City of Los Angeles sewer lines in Dewey Street and Stanwood Place. (See Figure IV.H-1.) Based upon the Bureau of Sanitation's preliminary evaluation, existing wastewater infrastructure is expected to be able to accommodate the increase in wastewater generation produced by at the Bundy Campus. However, further detailed gauging and evaluation of the local line capacities would be determined during the permit application process by the City of Los Angeles Bureau of Engineering.<sup>8</sup> As such, the Master Plan would have a less-than-significant impact with respect to local wastewater infrastructure.

<sup>8</sup> Ibid.

<sup>&</sup>lt;sup>7</sup> Written correspondence from Adel Hagekhalil, Division Manager of Wastewater Engineering Services, City of Los Angeles, Department of Public Works, Bureau of Sanitation, September 12, 2005.

# **CUMULATIVE IMPACTS**

The Master Plan in combination with the related projects identified in Section III (Environmental Setting) would result in an increased demand for local wastewater infrastructure and sewage treatment provided by the Bureau of Sanitation. The cumulative wastewater generation of the Master Plan and related projects would be approximately 2,965,001 gpd (2.97 mgd). (See Table F-1 in Appendix F.2 to this Draft EIR.)

As discussed previously, the remaining daily capacity of the HTP is 88 mgd. Therefore, the HTP would be expected to have adequate capacity to accommodate the cumulative wastewater generation and a less-than-significant cumulative impact would occur with respect to wastewater treatment.

With respect to local wastewater infrastructure, the Bundy Campus is already adequately served by local sewer lines. The Bureau of Sanitation has stated that the local infrastructure is able to accommodate the increase in wastewater flows that are anticipated to occur as a result of buildout of the Master Plan. Therefore, cumulative impacts related to local water infrastructure would be less than significant.

Furthermore, the City of Los Angeles is currently in the process of preparing a Final EIR for its Integrated Resources Plan. The Integrated Resources Plan would improve and upgrade the wastewater and recycled water systems and runoff management programs in the City of Los Angeles through the year 2020. Once the Final EIR is completed and certified, the City will make a determination whether to approve one of the four alternatives identified in the Final EIR.<sup>9</sup>

Overall, the Master Plan would not combine with the related projects to cause a cumulatively significant impact related to sewage treatment facilities or local sewer infrastructure and cumulative impacts would be less than significant.

# MITIGATION MEASURES

As the Master Plan would have a less-than-significant impact with respect to wastewater, no mitigation measures are required.

# LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Master Plan would have a less-than-significant impact with respect to wastewater.

<sup>&</sup>lt;sup>9</sup> City of Los Angeles Department of Public Works, Bureau of Sanitation and Department of Water and Power, Integrated Resources Plan Draft Environmental Impact Report, SCH No. 2004071091, November 2005, website: http://www.lacity-irp.org/DraftEIR.pdf, June 29, 2006.

# IV. ENVIRONMENTAL IMPACT ANALYSIS H. PUBLIC UTILITIES 2. WATER

# **ENVIRONMENTAL SETTING**

### **Regional Setting**

The City of Los Angeles Department of Water and Power (LADWP) provides water service to the City of Los Angeles, including the Bundy Campus and surrounding locale. LADWP is responsible for ensuring that water demand within the City is met and that State and federal water quality standards are achieved.

### Water Treatment

The Bundy Campus is served by the Los Angeles Aqueduct Filtration Plant, located in Sylmar, owned and operated by LADWP, which treats City water prior to distribution throughout the LADWP's Central Water Service Area. The current designed treatment capacity for the plant is 600 million gallons per day (mgd). The average daily flow through the treatment plant is approximately 450 mgd during the non-summer months and 550 mgd during the summer months, and operates at between 75 and 90 percent capacity.<sup>10</sup>

# Regional Water Supply

In terms of the City's overall water supply, in addition to local groundwater sources, the LADWP operates and receives water via the Los Angeles-Owens River aqueduct and is a member of the Metropolitan Water District of Southern California (MWD). According to the LADWP 2005 Urban Water Management Plan, City water supplies are currently derived from the following sources: (1) approximately 51 percent purchased from the MWD; (2) approximately 34 percent received from the Los Angeles Aqueduct; and (3) approximately 15 percent pumped from groundwater basins, including the San Fernando, Sylmar, West Coast, and Central groundwater basins. The amount of water obtained from these sources varies from year to year and is primarily dependent on weather conditions and demand.<sup>11</sup>

According to LADWP projections, the three aforementioned sources, in combination with potential alternative sources such as recycled, desalinated, and transferred water, will supply the City's water needs beyond the year 2030. LADWP projects water demand for 2005 to be approximately 661,000 acre-feet per year (AFY) of water; water demand for 2030 is projected to reach 776,000 AFY.<sup>12</sup>

<sup>12</sup> Ibid.

<sup>&</sup>lt;sup>10</sup> Written correspondence from Charles C. Holloway, Supervisor of Environmental Assessment, City of Los Angeles Department of Water and Power, August 25, 2005.

<sup>&</sup>lt;sup>11</sup> City of Los Angeles, Department of Water and Power, 2005 Urban Water Management Plan, posted online December 20, 2005.

LADWP has instituted significant water conservation measures to go along with the State level regulations. These measures are included in the Los Angeles Municipal Code (LAMC) Chapter XII. Water Conservation Plan, as amended by Ord. 166,080, Ord. 163,532, and others. Mandatory water conservation policies include:

- New buildings are required to install and existing building are required to be replaced with water conservation fixtures, including ultra low-flush toilets, urinals, taps, and showerheads;
- Hose washing of hard paved surfaces is prohibited;
- Mandatory 10 percent reduction in irrigation of large turf areas (three acres or more) from the 1986 base year;
- Irrigation and lawn watering is prohibited between 10 AM and 5 PM from April 1<sup>st</sup> to September 30<sup>th</sup> and between 11 AM and 3 PM between October 1<sup>st</sup> and March 31<sup>st</sup>.

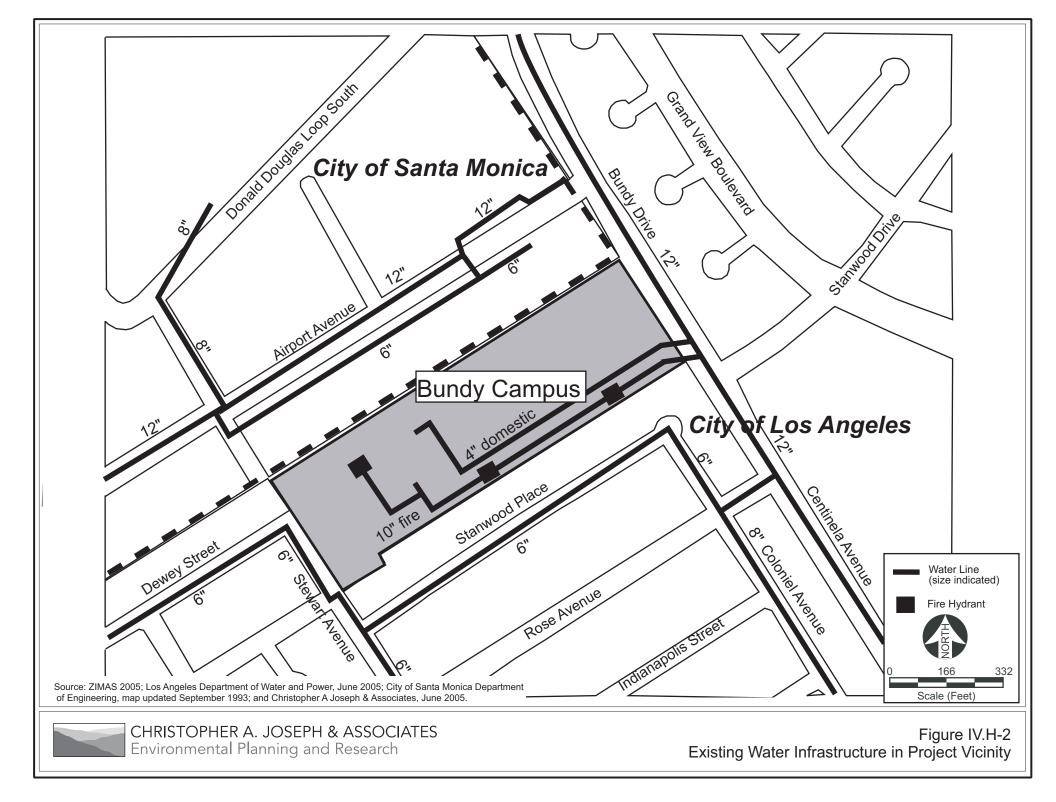
LADWP is also in the process of expanding water recycling plants throughout the City, to reach its goal of providing recycled water for 10 percent of total demand by 2010. The City currently recycles approximately 64,450 AFY of water at the Hyperion Treatment Plant, Los Angeles/Glendale Water Reclamation Plant, West Basin Water Reclamation Plant, and Tillman Water Reclamation Plant. This recycled water is used primarily for irrigation and industrial uses; the remainder is sold wholesale to the West Basin Municipal Water District. LADWP plans to increase recycled water production by an additional 30,000 AFY by 2020.<sup>13</sup>

### Local Water Infrastructure

As shown in Figure IV.H-2, local water service is provided to the Bundy Campus by an existing 4-inch water line providing up to 400 gallons per minute (gpm) of flow and a 10-inch fire service line providing up to 5,000 gpm of flow. These onsite water lines run along the south driveway serving the existing East and West Buildings and connect to an existing 12-inch City of Los Angeles water line in Bundy Drive.<sup>14</sup>

<sup>&</sup>lt;sup>13</sup> Ibid.

<sup>&</sup>lt;sup>14</sup> City of Los Angeles Department of Water and Power, Map Nos. 116-150,153 and 118-150-153, provided by request June 29, 2005.



There are also 6-inch City of Los Angeles water lines in Stewart Avenue and Stanwood Place. The existing water pressure in the City of Los Angeles water line in Bundy Drive (north of Stanwood Place) ranges from 85 to 111 pounds per square inch (psi); water pressure in the City of Los Angeles water lines in Stewart Avenue and Stanwood Place ranges from 43 to 56 psi.<sup>15</sup> The Bundy Campus is also in the vicinity of the following City of Santa Monica water lines: 6-inch and 12-inch water lines in Airport Avenue, and 8-inch water lines in Donald Douglas Loop South.<sup>16</sup> However, these lines are not connected to LADWP water system serving the Bundy Campus and therefore would not be impacted by the Master Plan.

# **Project Site**

The Bundy Campus is currently developed with two existing buildings, including an unoccupied 33,055 sf East Building on the east side of the Bundy Campus and a recently renovated approximately 64,000 sf West Building on the west side of the Bundy Campus. The remainder of the Bundy Campus is generally occupied with paved surface parking. The former property owner used the East Building for light industrial uses up until 2002, since which time it has remained vacant. The renovated West Building currently has 16 classrooms in use, along with multi-purpose rooms, offices, and student services functions. Class scheduling for the Fall 2005 semester showed that a total of 409 students were on the Bundy Campus at any given time during the week. Based on staffing assignments, a total of approximately 35 faculty and staff were on the Bundy Campus at any given time during the week in the Fall 2005 semester. Based on SMC's LAWDP historic water bills, in 2005 the Bundy Campus consumed an average of approximately 2,495 gpd of water.<sup>17</sup>

# **ENVIRONMENTAL IMPACTS**

### **Thresholds of Significance**

To determine whether a proposed project would have a significant impact related to water, Appendix G to the State CEQA Guidelines asks if a project would:

(a) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects; or

<sup>&</sup>lt;sup>15</sup> Written correspondence from Charles C. Holloway, Supervisor of Environmental Assessment, City of Los Angeles Department of Water and Power, August 25, 2005.

<sup>&</sup>lt;sup>16</sup> City of Santa Monica, Department of Engineering, Map No. 45, updated September 1993.

<sup>&</sup>lt;sup>17</sup> City of Los Angeles Department of Water and Power, Santa Monica Community College District, 3171 S Bundy Dr, bills issued February 14, 2006; March 16, 2006; April 17, 2006; May 15, 2006; and June 14, 2006.

(b) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

The District has not yet adopted thresholds of significance for assessing whether potential environmental impacts are significant for purposes of CEQA. Consequently, this EIR uses those thresholds of significance set forth by the City of Los Angeles pursuant to Public Resources Code Section 21082. As set forth in the City of Los Angeles' <u>Draft L.A. CEQA Thresholds Guide</u>, in determining the significance of a project's water impacts, the following should be considered:

- (a) The total estimated water demand for the project;
- (b) Whether sufficient capacity exists in the water infrastructure that would serve the project, taking into account the anticipated conditions at project buildout;
- (c) The amount by which the project would cause the projected growth in population, housing, or employment for the Community Plan area to be exceeded in the year of the project completion; and
- (d) The degree to which scheduled water infrastructure improvements or project design features would reduce or offset service impacts.

# **Project Design Features**

The Master Plan will incorporate a variety of project design features intended to minimize the Bundy Campus' use of water resources at Master Plan buildout. These water-efficient project design features may include the following:

- The Master Plan will be certified under the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design New Construction (LEED-NC) Rating System or a more recently approved LEED rating system applicable to educational facilities. To obtain LEED certification, the Master Plan will obtain a minimum of 26 points achievable through incorporation of various credits, such as, but not limited to the employment of strategies (e.g., the incorporation of low flow and waterless fixtures, including but not limited to water closets, urinals, lavatory faucets, showers and kitchen sinks, as appropriate within the New Building) that in aggregate use 20 to 30 percent less water than the water use baseline calculated for the building (not including irrigation) after meeting the Energy Policy Act of 1992 fixture performance requirements (Water Efficiency (WE) Credits 3.1 and 3.2).
- Santa Monica College will provide one additional fire hydrant on the Bundy Campus, to be located on the east side of the New Building, south of the accessible parking spaces. A fire flow of 1,500 gpm will be required from this hydrant.

- The Master Plan will incorporate water saving techniques as required by the City of Los Angeles Municipal Code Chapter XII (Water Conservation Plan), as amended by Ordinances 166,080 and 163,532. Water conservation measures described in this Chapter include, but are not limited to, the following:
  - New buildings will install and existing buildings will be replaced with water conservation fixtures, including ultra low-flush toilets, waterless urinals, and water-saving taps and showerheads;
  - Hose washing of hard paved surfaces will be prohibited;
  - Irrigation and lawn watering will be prohibited between 10 AM and 5 PM from April 1<sup>st</sup> to September 30<sup>th</sup> and between 11 AM and 3 PM between October 1<sup>st</sup> and March 31<sup>st</sup>.
- The landscape irrigation system will be designed, installed, and tested to provide uniform irrigation coverage for each zone. Sprinkler head patterns will be adjusted to minimize over spray onto walkways and streets. Each zone (sprinkler valve) will water plants having similar watering needs (do not mix shrubs, flowers, and turf in the same watering zone).

Automatic irrigation timers will be set to water landscaping during early morning or late evening hours to reduce water losses from evaporation. Irrigation run times will be adjusted for all zones, seasonally reducing watering times and frequency in the cooler months (fall, winter, spring). Sprinkler timer run times will be adjusted to avoid water runoff, especially when irrigating sloped property.

- Drip irrigation will be used as feasible on the Bundy Campus.
- Drought-tolerant low water consuming plant varieties will be used to reduce irrigation water consumption. (For a list of these plant varieties, consult with the LADWP, or a landscape architect.)
- Ultra-low-flush toilets, waterless urinals, and water-saving showerheads will be installed in both new construction and when remodeling. Low flow faucet aerators will be installed on all sink faucets.
- Santa Monica College will provide air conditioning systems that meet Title 24 requirements.
- Santa Monica College will provide recirculating or point-of-use hot water systems on the Bundy Campus, which reduce water waste in long piping systems where water must be run for considerable periods before heated water reaches the outlet.

### **Project Characteristics**

#### Interim Phase

As discussed in Section II (Project Description), the Interim Phase of the Master Plan would involve expanded use of the four-story West Building from 16 to up to 20 classrooms and potential use of the existing two-story East Building for offices, student services, community education, storage or leased for other purposes consistent with current zoning. The Interim Phase would provide a new Northeast Bundy Driveway to accommodate the new traffic signal at the northeast corner of the campus, with a new internal drive that would turn sharply to the south upon entering the Bundy Campus and connect to the existing drive along the south side of the campus. Fourteen onsite parking spaces near Bundy Drive would be eliminated to accommodate the Northeast Bundy Driveway, with 594 parking spaces remaining. Because the Interim Phase would involve the same uses that would ultimately occur under Master Plan buildout, it is assumed that impacts that would occur in the Interim Phase would be less than or equal to those evaluated for Master Plan buildout. As such, the Interim Phase is not discussed in detail in this Section.

# Master Plan Buildout

As discussed in Section II (Project Description), buildout of the Master Plan calls for the retention of the existing four-story (approximately 64,000 sf) West Building, and proposes the eventual demolition of the two-story East Building (approximately 33,055 sf) and its replacement with a building of similar size to be located to the immediate east of the West Building. The New Building will be located within the center of the Bundy Campus, east of the existing West Building, creating a pedestrian-friendly campus green space in between the two buildings. The total developed floor area envisioned for the Bundy Campus would be approximately 100,000 sf. The proposed Site Plan depicting this vision is provided in Figure II-3 in Section II (Project Description).

# **Project Impacts**

The implementation of the Master Plan would result in the continued operation of the existing approximately 64,000 sf West Building on the west side of the Bundy Campus and the eventual demolition/relocation of the existing East Building with a New Building similar in size (approximately 38,205 sf) adjacent to the West Building. At buildout, the Master Plan would result in approximately 100,000 sf of floor area on the Bundy Campus, which is approximately equal to the amount of existing floor area on the site. However, the total number of water consumptive facilities onsite, including new bathrooms, sinks, and irrigated landscaping, would increase with the implementation of the Master Plan. Furthermore, the total number of students, faculty, and staff onsite at any given time would increase by approximately 485 persons from the existing 444 persons to the proposed 929 persons onsite, an approximate 52 percent increase. Therefore, based on the assumption that the 52 percent increase in persons onsite would generate a corresponding 52 percent increase in water consumption, the Master Plan would be expected to increase from the existing approximately 2,495 gpd of water consumed to

approximately 5,198 gpd of water consumed at Master Plan buildout, a net increase of approximately 2,703 gpd of water. This 2,703 gpd increase represents less than 0.003 mgd of water.

While the Master Plan would slightly increase water consumption on the Bundy Campus, development under the Master Plan would be subject to all applicable water conservation regulations identified in LAMC Chapter XII (Water Conservation Plan) as amended by Ordinances 166,080 and 163,532, described in detail in the beginning of this Section, and reiterated in the "Project Design Features" discussion later in this Section.

# Water Treatment

With respect to water treatment, the Los Angeles Aqueduct Filtration Plant has approximately 50 mgd of remaining capacity during summer months and 150 mgd of remaining capacity during non-summer months, which could accommodate the Master Plan's increased water consumption of less than 0.003 mgd. Therefore, the Master Plan would have a less-than-significant impact with respect to water treatment facilities.

# **Regional Water Supply**

From a regional water management planning perspective, LADWP estimates long-range water demands based on buildout of the City's General Plan, consistent with the density of development allowed within the respective underlying zoning districts. The Bundy Campus encompasses 10.4 acres (453,024 sf of lot area) and has an underlying allowable floor area ratio (FAR) of 1.5 times the buildable lot area. As such, the theoretical maximum density use for water supply planning projections for the future Bundy Campus is approximately 679,536 sf of development (453,024 sf of lot area x 1.5 FAR), which is well above the approximate 100,000 sf of development that is proposed upon buildout of the Master Plan. Therefore, the Bundy Campus' increase in water demand has been accommodated for within the context of regional water supply planning and growth forecasts. Therefore, impacts to regional water supplies would be less than significant.

# Local Water Infrastructure

As discussed above, upon project buildout, water consumption on the Bundy Campus is estimated to increase by approximately 2,703 gpd above existing consumption. While the Master Plan would slightly increase water consumption on the Bundy Campus, water service to the Bundy Campus would continue to be provided by LADWP from the existing water infrastructure on and surrounding the Bundy Campus. The east water line that currently connects to the existing East Building would be capped at the time of building demolition. Assuming the total flow of the two buildings does not exceed 400 gpm, the 38,205 sf New Building could be connected to the existing 4-inch City of Los Angeles water line running along the southern driveway on the Bundy Campus and serving the existing West Building. This line would continue to be served by the existing 12-inch City of Los Angeles water line in Bundy Drive (See Figure

IV.H-2.) Based upon the LADWP's preliminary evaluation, existing water infrastructure is expected to be able to accommodate the increase in water generation produced by the Bundy Campus.<sup>18</sup> Further detailed gauging and evaluation of the local line capacities would be determined during the permit application process by LADWP.

As discussed in Section IV.I.2 (Public Services - Fire Protection), the Master Plan is estimated to require a fire flow of 4,500 gallons per minute (gpm) from three fire hydrants flowing simultaneously, and a minimum residual water pressure of 20 psi at any given time.<sup>19</sup> The Bundy Campus is currently equipped with a 10-inch fire service line providing up to 5,000 gpm and three fire hydrants, one located on the west side of the west building, and two located on the southern boundary of the Bundy Campus. The existing water pressure in the water lines serving the Bundy Campus (i.e., ranging from 43 to 111 psi), existing water pressure is expected to be meet LAFD water pressure requirements for the Bundy Campus. Nonetheless, LAFD has required that one additional hydrant be located on the east side of the 38,205 sf New Building, south of the accessible parking spaces. A fire flow of 1,500 gpm will be required from this hydrant.<sup>20</sup> It is expected that this hydrant will connect to the existing 10-inch fire line. This additional fire hydrant is included as a project design feature of the Master Plan and is discussed further in Section IV.I.2 (Public Services - Fire Protection).

As the Master Plan is anticipated to be served by existing water infrastructure and would provide one additional fire hydrant to meet LAFD fire flow requirements, a less-than-significant impact with respect to local water infrastructure is expected.

# **CUMULATIVE IMPACTS**

The Master Plan in combination with the related projects identified in Section III (Environmental Setting) would result in an increased demand for regional water treatment and water supply as well as local water infrastructure provided by LADWP. The cumulative water consumption for the Master Plan and related projects would be approximately 3,052,767 gpd (3.05 mgd). (See Table F-2 in Appendix F.2 to this Draft EIR.)

With respect to water treatment facilities, as discussed previously, the remaining daily capacity of the Los Angeles Aqueduct Filtration Plant is approximately 50 mgd during summer months and 150 mgd during non-summer months. Therefore, the Los Angeles Aqueduct Filtration Plant would be expected to have

<sup>&</sup>lt;sup>18</sup> Written correspondence from Charles C. Holloway, Supervisor of Environmental Assessment, City of Los Angeles Department of Water and Power, August 25, 2005.

<sup>&</sup>lt;sup>19</sup> Written correspondence from Douglass L. Barry, Assistant Fire Marshal, City of Los Angeles Fire Department, Bureau of Fire Prevention and Public Safety, December 19, 2005.

<sup>&</sup>lt;sup>20</sup> Minutes from meeting between David R. Boone, E.W. Moon, Inc. Infrastructure Group and Joseph T. Johnson, Jr., City of Los Angeles Fire Department, re: Preliminary Review for Hydrants and Access, February 9, 2006.

adequate capacity to treat the cumulative water demand and a less-than-significant cumulative impact would occur with respect to water treatment.

With respect to regional water supplies, as with the Master Plan, all related projects within the City of Los Angeles' service area would be subject to the City-mandated water conservation program. The water requirement for any project that is consistent with the City's General Plan has been taken into account in the planned growth in overall water demand. For projects which are not consistent with the General Plan or that meet the criteria established in Sections 10910-10915 of the State Water Code, a water availability assessment demonstrating sufficient water availability would be required on a project-by-project basis. Therefore, assuming the related projects are in full compliance with the General Plan and/or are determined to be adequately served through a water availability assessment, and all projects implement the applicable water conservation programs such as those recommended below for the Master Plan, cumulative impacts related to regional water supplies would be less than significant.

With respect to local water infrastructure, the Bundy Campus is already adequately served by local water lines. The LADWP has determined that the existing water infrastructure is adequate to support the increased demands anticipated to result from the buildout of the proposed Master Plan. Therefore, the Master Plan would not contribute to a cumulative impact related to local water infrastructure and cumulative impacts would be less than significant.

Overall, the Master Plan would not combine with the related projects to create a cumulatively significant impact related to water, and cumulative impacts would be less than significant.

# MITIGATION MEASURES

As the Master Plan would result in a less-than-significant impact with respect to water supplies and infrastructure, no mitigation measures are required.

# LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Master Plan would have a less-than-significant impact with respect to water.

# IV. ENVIRONMENTAL IMPACT ANALYSIS H. PUBLIC UTILITIES 3. ENERGY

# **ENVIRONMENTAL SETTING**

# Electricity

# **Regional Setting**

The City of Los Angeles Department of Water and Power (LADWP) provides electrical utility service to the City of Los Angeles, including the Bundy Campus and the surrounding locale within the City's service area. LADWP supplies more than 22 million megawatt (mW) hours of electricity a year for the City's 1.4 million customers. In August 2000, the Los Angeles City Council approved LADWP's 10-year Integrated Resource Plan (IRP), which focuses on improving power reliability, keeping rates stable, and preserving the environment. Pursuant the IRP, LADWP is currently implementing several programs, including: investing in new combustion turbines, renewable energy resources, and energy efficiency programs; re-powering 10 of 18 Los Angeles Basin generating units; and replacing transformers and aging cables throughout the City.<sup>21</sup> LADWP's renewable energy goal is to provide 13 percent of the City's power from renewable energy sources by 2010.<sup>22</sup>

As shown in Figure IV.H-3, local electricity service is provided by 4.8kv and 34.5kv circuits in the project vicinity connecting to existing electrical lines located at the southeast corner of the Bundy Campus.<sup>23</sup>

### **Project Site**

The Bundy Campus is currently developed with two existing buildings, including a vacant 33,055-squarefoot (sf) East Building on the east side of the Bundy Campus and a recently renovated approximately 64,000 sf West Building on the west side of the Bundy Campus. The remainder of the Bundy Campus is generally occupied with paved surface parking. The East Building was occupied up until 2002, since which time it has remained vacant. The renovated four-story West Building currently has 16 classrooms in use, along with multi-purpose rooms, offices, and student services functions. Approximately 444 persons (students, faculty, and staff) currently occupy the West Building. Electricity is consumed for a variety of uses on the Bundy Campus, including: classroom and school administrative office lighting;

<sup>&</sup>lt;sup>21</sup> City of Los Angeles Department of Water and Power, Power Past & Present, website: http://www.ladwp.com/ladwp/cms/ladwp001978.jsp, August 19, 2005.

<sup>&</sup>lt;sup>22</sup> City of Los Angeles Department of Water and Power, Power Past & Present, website: http://www.ladwp.com/ladwp/cms/ladwp005864.jsp, August 19, 2005.

<sup>&</sup>lt;sup>23</sup> Written correspondence from Charles C. Holloway, Supervisor of Environmental Assessment, City of Los Angeles Department of Water and Power, August 25, 2005.

outdoor/security lighting; and electricity associated with classroom instruction (e.g., for operating equipment, etc.). As shown in Table IV.H-1, existing uses on the Bundy Campus currently consume approximately 739,200 kilowatt hours (kWh) per year (2,025.2 kWh per day) of electricity.

### Table IV.H-1

#### **Existing Electricity Consumption**

Land Use	Size (sf)	Energy Consumption Rate (kWh/sf/year) <sup>a</sup>	Total (kWh/year)
Existing			
East Building (Vacant)	33,055	n/a <sup>b</sup>	0
West Building (Partially Occupied)	64,000	11.55	739,200
		Total Existing	739,200
<i>Note: kWh=kilowatt hours; sf = square fo</i>	pot.		
<i><sup>a</sup></i> Electricity consumption rate provided	l by South Coast Air Quality Mar	nagement District, CEQA Air Quality Hand	dbook, 1993.
<sup>b</sup> East Building is not currently in use.			
Source: Christopher A. Joseph & Associa	tes, August 2005.		

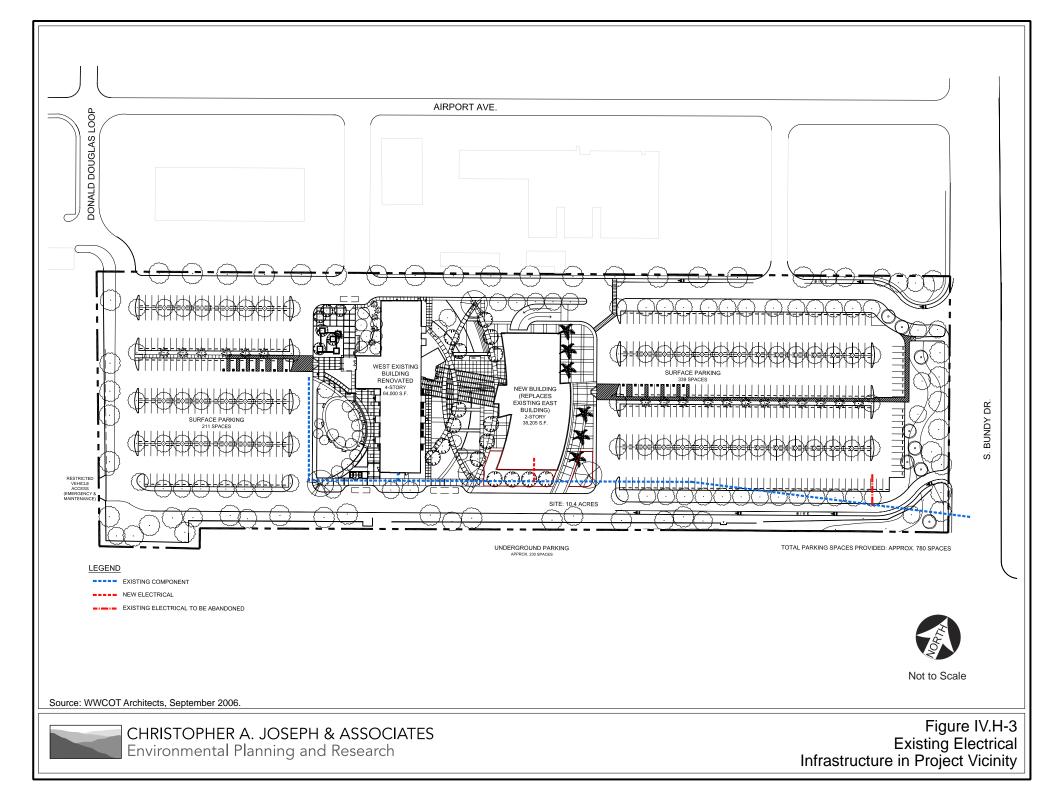
# Natural Gas

# **Regional Setting**

The Southern California Gas Company (SCG) provides natural gas service to the City of Los Angeles, including the Bundy Campus and surrounding locale. As a public utility, SCG is under the jurisdiction of the California Public Utilities Commission (PUC), but can also be affected by actions of federal regulatory agencies. Should these agencies take any action that affects gas supply or the conditions under which service is available, gas service would be provided in accordance with those revised conditions.

As of 2005, the state of California produces approximately 78 percent of the electricity it uses. The remaining 22 percent is purchased through suppliers from the Desert Southwest (15%) and the Pacific Northwest (7%). Thirty-eight percent of the state's electrical energy is generated by natural gas. Additional electricity is generated through other means including hydro-power (17%), nuclear (14%), coal (20%), and renewable sources including solar, wind, and geothermal (11%).<sup>24</sup>

<sup>&</sup>lt;sup>24</sup> California Energy Commission, California's Major Sources of Energy, website: http://energy.ca.gov/html/energysources.html, May 30, 2006.



Currently, the LADWP is developing a Renewables Portfolio Standard (RPS) designed to increase its renewable energy sales to 20 percent by 2017, with an interim goal of 13 percent by 2010.<sup>25</sup>

As shown in Figure IV.H-4, local natural gas infrastructure in the project vicinity includes existing twoinch gas mains located at the southeast corner of the Bundy Campus connecting to exiting off-site natural gas facilities owned and maintained by the SCG.<sup>26</sup>

# Project Site

The Bundy Campus is currently developed with two existing buildings, including a vacant 33,055 sf East Building on the east side of the Bundy Campus and a recently renovated approximately 64,000 sf West Building on the west side of the Bundy Campus. The remainder of the Bundy Campus is generally occupied with paved surface parking. The two-story East building was occupied up until 2002 with light industrial uses under the former property owner, BAE Systems. The West Building currently has 16 classrooms in use, along with multi-purpose rooms, offices, and student services functions. Approximately 444 persons (students, faculty, and staff) currently occupy the four-story West Building. As shown in Table IV.H-2, existing uses on the Bundy Campus, including heating in the existing West Building, currently consume approximately 185,600 cubic feet (cf) per month (5,987.1 cf per day) of natural gas.

# Table IV.H-2

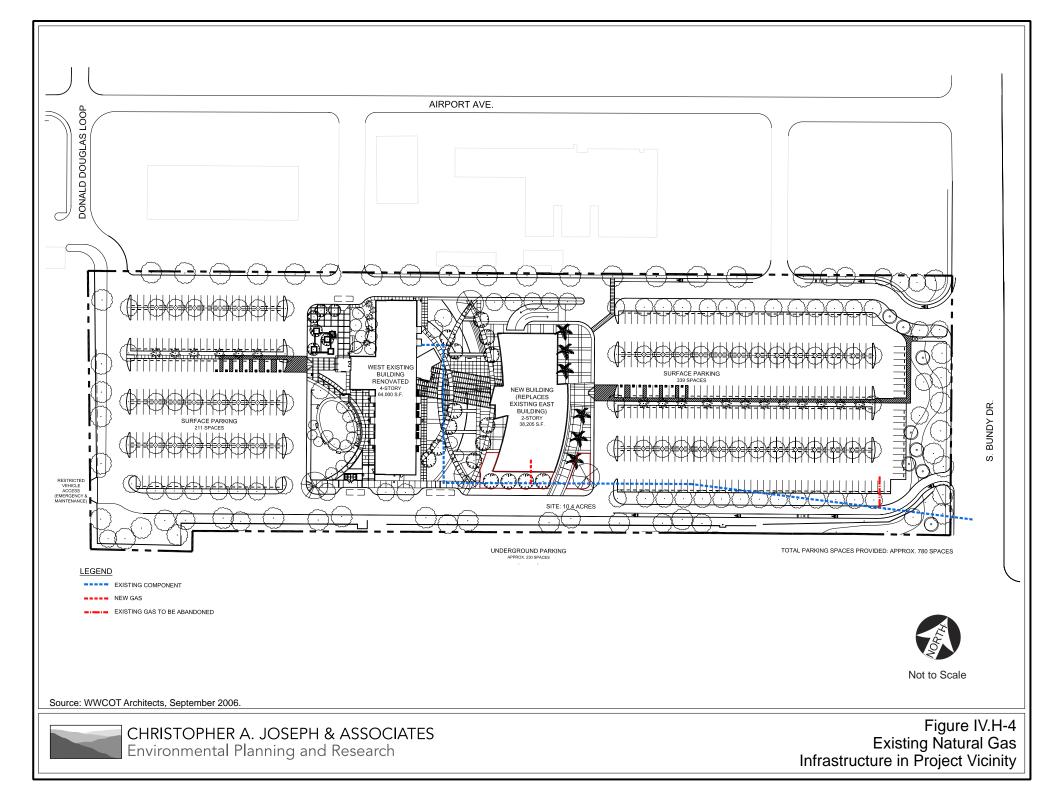
Land Use	Size (sf)	Natural Gas Consumption Rate (cf/sf/month) <sup>a</sup>	Total (cf/month)
Existing			
East Building (Vacant)	33,055	n/a <sup>b</sup>	0
West Building (Partially Occupied)	64,000	2.9	185,600
		Total Existing	185,600
<i>Note: cf</i> = <i>cubic feet; sf</i> = <i>square foot.</i>			
<sup>a</sup> Natural gas generation rate provide	d by South Coast Air Quality M	anagement District, CEQA Air Quality H	andbook, 1993.
Classrooms assumed to use same rate	e as office uses.		
<sup>b</sup> East Building is not currently in use.			

### **Existing Natural Gas Consumption**

Source: Christopher A. Joseph & Associates, August 2005.

<sup>&</sup>lt;sup>25</sup> City of Los Angeles Department of Water and Power, Renewable Energy, website: http://www.ladwp.com/ladwp/cms/ladwp005864.jsp, May 30, 2006.

<sup>&</sup>lt;sup>26</sup> Written correspondence from Gayle Jovoni, Pacific Region Pipeline Planner, Sempra Energy Company, September 16, 2005.



# **ENVIRONMENTAL IMPACTS**

#### **Thresholds of Significance**

In accordance with Appendix F to the State CEQA Guidelines, the following should be considered to determine whether a project would have a potentially significant environmental effect with respect to energy:

- (a) The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project's life cycle including construction, operation maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- (b) The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- (c) The effects of the project on peak and base period demands for electricity and other forms of energy.
- (d) The degree to which the project complies with existing energy standards.
- (e) The effects of the project on energy resources.
- (f) The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

The District has not yet adopted thresholds of significance for assessing whether potential environmental impacts are significant for purposes of CEQA. Consequently, this EIR uses those thresholds of significance set forth by the City of Los Angeles pursuant to Public Resources Code Section 21082. As set forth in the City of Los Angeles' <u>Draft L.A. CEQA Thresholds Guide</u>, in determining the significance of a project's energy impacts, the following should be considered:

- (a) The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure, or capacity enhancing alternations to existing facilities;
- (b) Whether and when the needed infrastructure was anticipated by adopted plans; and
- (c) The degree to which the project design and/or operations incorporate energy conservation measures, particularly those that go beyond City requirements.

### **Project Design Features**

The Master Plan will incorporate a variety of project design features intended to minimize the Bundy Campus' use of electricity and natural gas resources at Master Plan buildout. These energy-efficient project design features may include the following:

- SMC will incorporate measures recommended by the LADWP to meet or, if possible, improve upon the minimum efficiency standards for Title XXIV of the California Code of Regulations. Measures may include, but are not limited to those outlined in LADWP's Notice of Preparation (NOP) response letter dated September 15, 2005 and included in Appendix A.
- The Master Plan will be certified under the United States Green Building Council's (USGBC) Leadership in Energy and Environmental Design – New Construction (LEED-NC) Rating System or a more recently approved LEED rating system applicable to educational facilities. To obtain LEED certification, the Master Plan will incorporate all of the following required Energy and Atmosphere (EA) prerequisites:
  - EA Prerequisite 1: the Master Plan will undergo a commissioning process for, at minimum, the following energy systems: heating, ventilation, air conditioning, and refrigeration (HVAC&R), lighting, domestic hot water, and renewable energy systems. Commissioning process will include: designation of individual as the Commissioning Authority; documentation of Owner's Project Requirements (OPR) and incorporation into construction plans; development of commissioning plan; verification of implementation of commissioning plan; and completion of a summary report; and
  - EA Prerequisite 2: the Master Plan will include an energy system design that complies with both the mandatory provisions (Sections 5.4, 6.4, 7.4, 8.4, 9.4 and 10.4) of American Society of Heating Refrigerating and Air Conditioning Engineers/Illuminating and Engineering Society of North America's (ASHRAE/IESNA) Standard 90.1-2004 (without amendments) and the prescriptive requirements (Sections 5.5, 6.5, 7.5 and 9.5) or performance requirements (Section 11) of ASHRAE/IESNA Standard 90.1-2004 (without amendments); and
  - EA Prerequisite 3: the Master Plan will use zero chlorofluorocarbons (CFC)-based refrigerants in new HVAC&R systems.
- In addition to incorporation of the above-listed energy prerequisites, in order to obtain LEED certification the Master Plan will obtain a minimum of 26 points achievable through incorporation of various LEED credits, such as, but not limited to the following energy credits:
  - EA Credit 1: the Master Plan may demonstrate a percentage improvement in the proposed building performance rating compared to the baseline building performance rating per ASHRAE/IESNA Standard 90.1-2004 (without amendments). To meet the criteria of this credit, the Master Plan may provide
    - floor to ceiling, clear, insulated, low-emissivity windows on the north and east façades of the New Building;

- silver metallic, vertical louvers to provide shade from the morning sun on the east and west façades of the New Building;
- horizontal, silver metallic louvers to shade the south façade of the New Building throughout the day;
- EA Credit 2: the Master Plan may use on-site renewable energy systems, such as photovoltaic cells (solar panels) to serve the electrical needs of the East and West Buildings, to offset building energy cost;
- EA Credit 3: the Master Plan may implement enhanced commissioning process activities in addition to the requirements of EA Prerequisite 1, above; and/or
- EA Credit 4: the Master Plan may either not use refrigerants, or may select refrigerants and HVAC&R that minimize or eliminate the emission of compounds that contribute to ozone depletion and global warming. In this latter case, the Master Plan would not install fire suppression systems that contain ozone-depleting substances (CFCs, hydrochlorofluorocarbons (HCFCs) or Halons); and/or
- EA Credit 5: the Master Plan may develop and implement a Measurement & Verification (M&V) Plan consistent with Option D: Calibrated Simulation (Savings Estimation Method 2), or Option B: Energy Conservation Measure Isolation, as specified in the International Performance Measurement & Verification Protocol (IPMVP) Volume III: Concepts and Options for Determining Energy Savings in New Construction, April, 2003. The M&V period will cover a period of no less than one year of post-construction occupancy; and/or
- EA Credit 6: the Master Plan may provide at least 35 percent of Master Plan's electricity from renewable sources, as defined by the Center for Resource Solutions (CRS) Green-e products certification requirements, by engaging in at least a two-year renewable energy contract.

# **Project Impacts**

# Construction

Energy would be consumed during the demolition, excavation, site preparation, and construction phases of the Master Plan. As the Master Plan would take place over a 10-year period, it is only possible to provide estimates of the type of construction equipment that would be used. It is expected that heavy equipment involved in the demolition, excavation, site preparation, material transfer, and construction phases of the Master Plan would include crawler-excavators, loaders, bulldozers, graders, water trucks, street sweepers, tractors, cranes, fork lifts, and dump trucks, most of which are diesel-powered. Construction workers' personal vehicle travel to and from the Bundy Campus would consume unleaded fuel during the construction period. In total, the Bundy Campus would result in an increased demand for electricity, natural gas, and other energy sources during an approximate 12-month construction period. (Note that the 12-month construction period refers to the net duration of construction activities which may in actuality be spread out over the course of several years.)

# Operation

The implementation of the Master Plan would result in the continued operation of the existing approximately 64,000 sf West Building on the west side of the Bundy Campus and the eventual demolition/relocation of the existing East Building with a New Building similar in size (approximately 38,205 sf) adjacent to the West Building. At buildout, the Master Plan would result in approximately 100,000 sf of total floor area on the Bundy Campus, which is approximately equal to the amount of existing floor area on the Bundy Campus. The total number of students, faculty, and staff onsite at any given time would increase by approximately 485 persons. However, the primary increase in operational energy use would be attributed to the increase in the total number of energy consumptive facilities onsite, discussed in more detail below for both electricity and natural gas.

The proposed New Building would be designed to limit the amount of energy required for operation through the implementation of sustainable building principles related to energy conservation. These design features have been included as "Project Design Features" discussed previously in this Section and would reduce the amount of energy consumed on the Bundy Campus.

# Electricity

Electrical service to the Bundy Campus would continue to be provided by LADWP's existing distribution system with transformation to the proposed New Building's utilization voltage to take place on the campus. The Master Plan would increase the total number of electricity-consumptive facilities located onsite, including interior lighting and electrical outlets for various classroom and school administrative office uses that would be provided in the New Building, and the provision of nighttime and security lighting throughout the Bundy Campus and parking areas. Therefore, as indicated in Table IV.H-3, the Bundy Campus is estimated to consume a net increase of approximately 441,268 kWh per year (1,209 kWh per day) of electricity under the Master Plan. This estimate is based on standard utility rates provided by the South Coast Air Quality Management District (SCAQMD) and does not account for the proposed energy-efficient "Project Design Features" described previously in this Section. Therefore this estimate is conservative and the actual energy demands would be reduced considerably.

#### Table IV.H-3

Land Use	Size (sf)	Electricity Consumption Rate (kWh/sf/year) <sup>a</sup>	Total (kWh/year)
Existing			
East Building (Vacant)	33,055	n/a <sup>b</sup>	0
West Building (Partially Occupied)	64,000	11.55	739,200
		Subtotal Existing	739,200
Proposed			
New Building (Fully Occupied)	38,205	11.55	441,268
West Building (Fully Occupied)	64,000	11.55	739,200
		Subtotal Proposed	1,180,468
		Less Existing	(739,200)
		Proposed Net Increase	441,267.8

# **Existing and Proposed Electricity Consumption**

East Building is not currently in use.

Source: Christopher A. Joseph & Associates, September 2006.

#### Local Electrical Infrastructure

The proposed 38,205 sf New Building would increase the use of electricity on the site. Demolition of the existing East Building would require the removal of the existing power connection to that building. The New Building is expected to require 750-amp service at 480 Volts. The ability of the LADWP's local electrical infrastructure to deliver the peak electricity requirement to the site would not be expected to be severely affected by implementation of the Master Plan. In the case that any off-site electrical system improvements are determined to be necessary by LADWP in order to serve the Bundy Campus, they would be required to be implemented prior to project completion. Such improvements however, could be made with minimal impact upon the surrounding land uses, and all property owners would be notified in advance if temporary electrical outages are expected. Furthermore, LADWP has stated that the Master Plan is not expected to have an adverse impact on LADWP's distribution system.<sup>27</sup> Impacts to electricity infrastructure would be expected to be less than significant.

#### **Regional Electricity Supply**

While the Master Plan would implement energy conservation practices described previously, the extent of energy conservation and efficiency cannot be calculated with any degree of certainty. As such, this estimate should be considered conservative from a long-range planning perspective. From a regional

<sup>27</sup> Written correspondence from Charles C. Holloway, Supervisor of Environmental Assessment, City of Los Angeles Department of Water and Power, August 25, 2005.

energy management planning perspective, LADWP estimates long-range energy demands based on buildout of the City's General Plan, consistent with the density of development permitted within the respective underlying zoning districts. The Bundy Campus encompasses 10.4 acres (453,024 sf of lot area) and has an underlying allowable FAR of 1.5 times the buildable lot area. As such, the theoretical maximum density use for electric planning projections for the Bundy Campus is approximately 679,536 sf of development (453,024 sf of lot area x 1.5 FAR), which is well above the approximately 100,000 sf of development that is proposed upon buildout of the Master Plan. Therefore, the Master Plan's increase in electricity demand has been accommodated within the context of regional energy supply planning and impacts related to regional electricity supply would be less than significant.

# Natural Gas

With the development of the Master Plan, natural gas would continue to be provided to the Bundy Campus by the SCG from existing facilities in the vicinity. The Master Plan would increase the total number of natural gas-consumptive facilities located onsite, including heating for classrooms and school administrative offices to be provided within the New Building. Therefore, as indicated in Table IV.H-4, the Bundy Campus is estimated to consume a net increase of approximately 110,795 cf per month (3,574 cf per day) of natural gas under the Master Plan. This estimate is based on standard utility rates provided by the SCAQMD and does not account for the proposed energy-efficient project design features described previously in this Section. Therefore this estimate is conservative and the actual energy demands would be reduced considerably.

### Table IV.H-4

Land Use	Size (sf)	Natural Gas ConsumptionRate (cf/sf/month) a	Total (cf/month)
Existing			
East Building (Vacant)	33,055	n/a <sup>b</sup>	0
West Building (Partially Occupied)	64,000	2.9	185,600
		Subtotal Existing	185,600
Proposed			
New Building (Fully Occupied)	38,205	2.9	110,794
West Building (Fully Occupied)	64,000	2.9	185,600
		Subtotal Proposed	296,394.5
		Less Existing	(185,600)
		Proposed Net Increase	110,794

### **Existing and Proposed Natural Gas Consumption**

Natural gas generation rate provided by South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993. Classrooms assumed to use same rate as office uses.

East Building is not currently in use.

Source: Christopher A. Joseph & Associates, September 2006.

#### Local Natural Gas Infrastructure

The proposed 38,205 sf New Building would slightly increase the use of natural gas on the site. The demolition of the existing East Building would require the removal of the existing gas hook-ups to that building. The ability of SCG natural gas infrastructure to deliver the peak natural gas requirement to the site would not be expected to be severely affected by implementation of the Master Plan. In the case that any off-site gas delivery system improvements are determined to be necessary by SCG in order to serve the Bundy Campus, they would be required to be implemented prior to project completion. Such improvements however, could be made with minimal impact upon the surrounding land uses, and all property owners would be notified in advance if temporary gas outages are expected. Furthermore, SCG has stated that the delivery of gas to serve the Bundy Campus would not be expected to result in a significant impact to the environment under the Master Plan.<sup>28</sup> Impacts to natural gas infrastructure would be less than significant.

### Regional Natural Gas Supply

Natural gas supply for the State of California is projected to remain relatively constant through 2012. In addition, several new pipeline proposals in California, Mexico, and Arizona are currently being considered which would further increase the supply of natural gas for the Southern California region.<sup>29</sup> Therefore, while the Master Plan would slightly increase the demand on the regional natural gas supply, the Bundy Campus' demand would not be expected to reduce the SCG's ability to supply natural gas to other customers and impacts related to regional natural gas supply would be expected to be less than significant.

# **CUMULATIVE IMPACTS**

Development and implementation of the Master Plan and the related projects would result in cumulative increase in the consumption of electricity and natural gas in the project area. The Master Plan in combination with the related projects would be expected to increase electricity consumption by approximately 122.1 million kWh per year (0.33 million kWh per day). (See Table F-3 in Appendix F.2 to this Draft EIR.)

The Master Plan in combination with the related projects would be expected to increase natural gas consumption by approximately 73.0 million cf per month (2.3 million cf per day). (See Table F-4 in Appendix F.2 to this Draft EIR.)

<sup>&</sup>lt;sup>28</sup> Written correspondence from Gayle Jovoni, Pacific Region Pipeline Planner, Sempra Energy Company, September 16, 2005.

<sup>&</sup>lt;sup>29</sup> California Energy Commission, Natural Gas Supply and Infrastructure Assessment Staff Paper, December 2002, website: http://www.energy.ca.gov/reports/2002-12-12\_700-02-006F.PDF, August 19, 2005.

The related projects' demand for electricity and natural gas may potentially require the installation of additional local electrical and/or natural gas infrastructure. However, any locally occurring impacts on utility service associated with these installations would be determined on a case-by-case basis in conjunction with the development proposals for each related project. Furthermore, as the Bundy Campus is fully served by existing energy infrastructure in the project vicinity, the Master Plan would not combine with the related projects to cause a cumulative impact related to local energy infrastructure and cumulative impacts would be less than significant.

With respect to regional electricity and natural gas supply, as discussed previously, both LADWP and the SCG have established long-term plans to address energy demand and supply for the southern California region. Similar to the Master Plan, all related projects would be expected to fully comply with all applicable local, State, and federal energy conservation programs. Related projects could further reduce energy impacts through the incorporation of project design features similar to those included in the Master Plan. Assuming related projects are in full compliance with all applicable energy regulations, cumulative impacts related energy supply would be less than significant.

# **MITIGATION MEASURES**

As the Master Plan would result in less-than-significant impacts with respect to electricity and natural gas, no mitigation measures are required.

# LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Master Plan would have a less-than-significant impact with respect to energy resources.